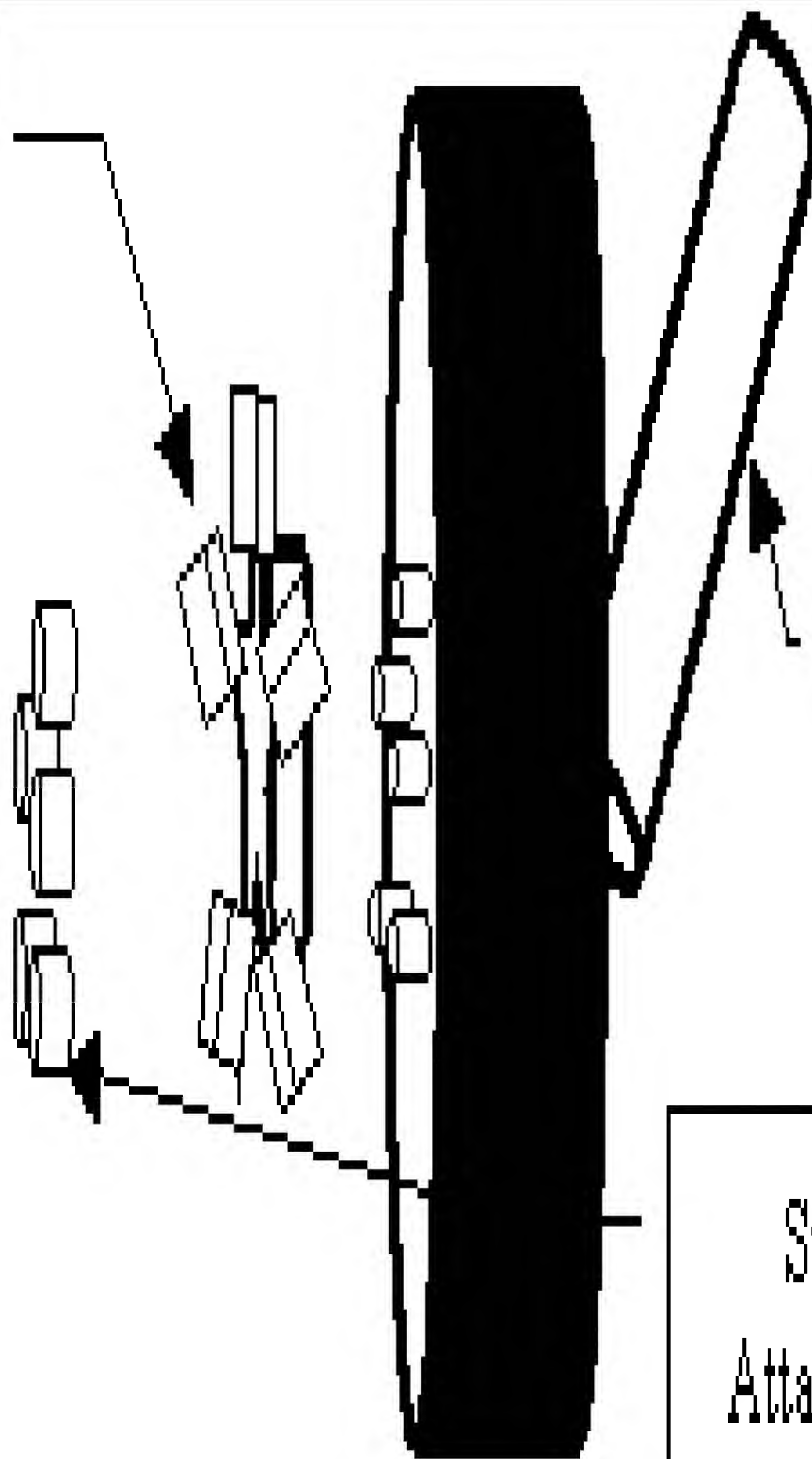Aircraft Wheel Pre-Spin Rotor

Typical Aircraft Landing Gear

Standard Wheel Attachment Hardware

FIGURE 1: EXAMPLE OF ONE METHOD FOR INCORPORATING THE AERODYNAMIC EFFECTS NEEDED FOR WHEEL SPIN-UP
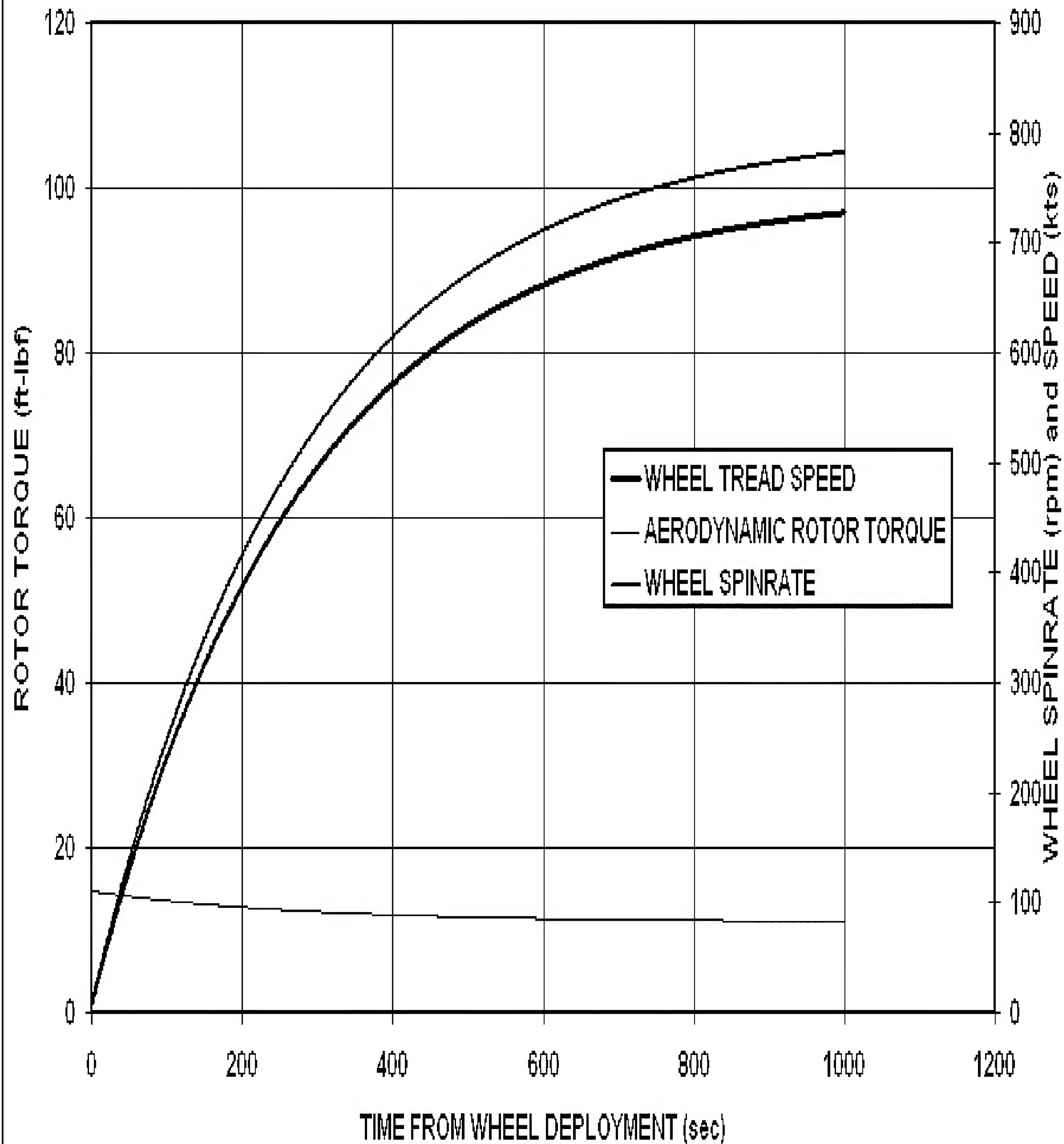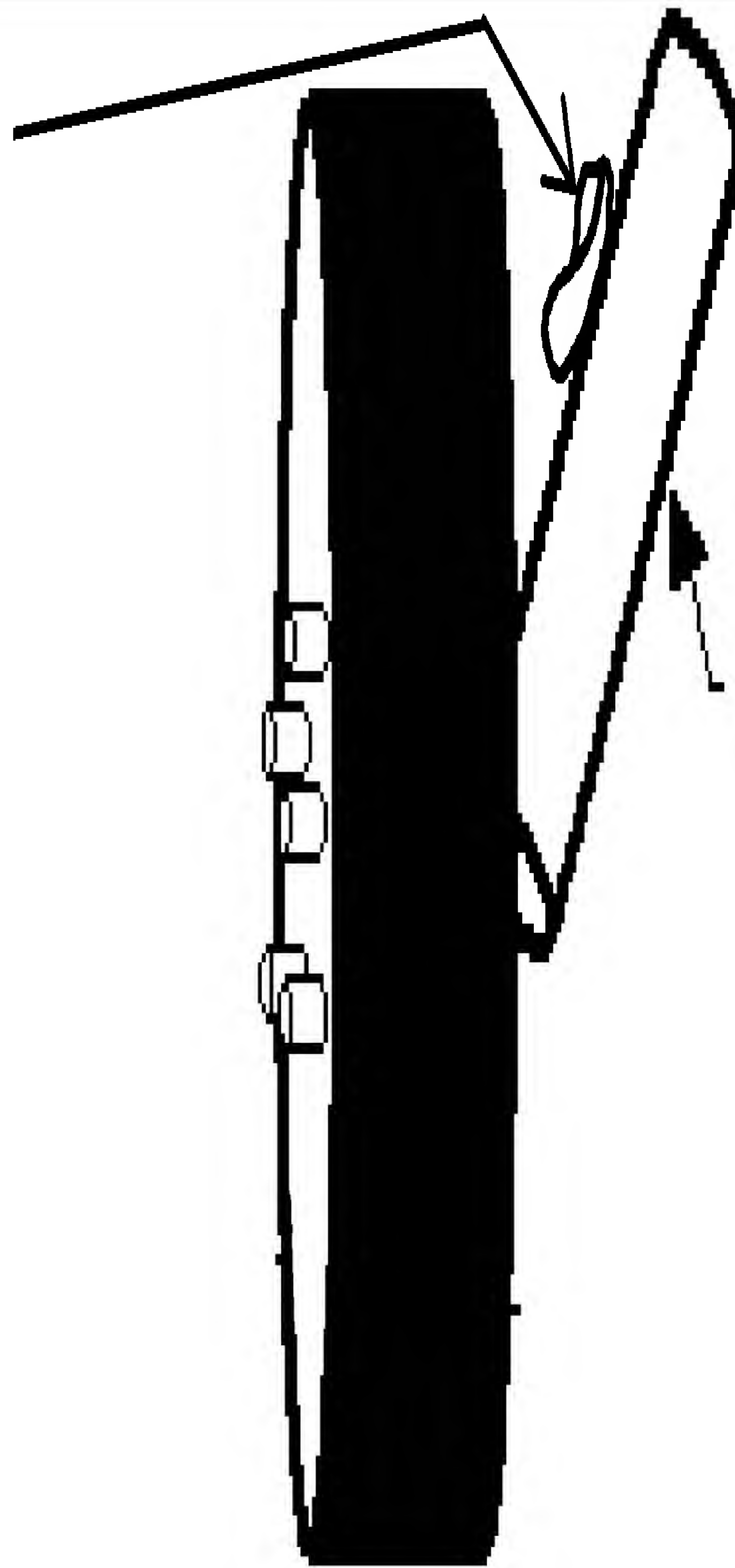
AIRCRAFT WHEEL PRE-SPIN ROTOR
PERFORMANCE PREDICTION

FIGURE 2: EXAMPLE OF PREDICTED WHEEL ROTATIONAL RESPONSE AS A FUNCTION OF WHEEL SIZE, ROTOR AERODYNAMICS, AXLE FRICTION, ETC.

AIRCRAFT WHEEL
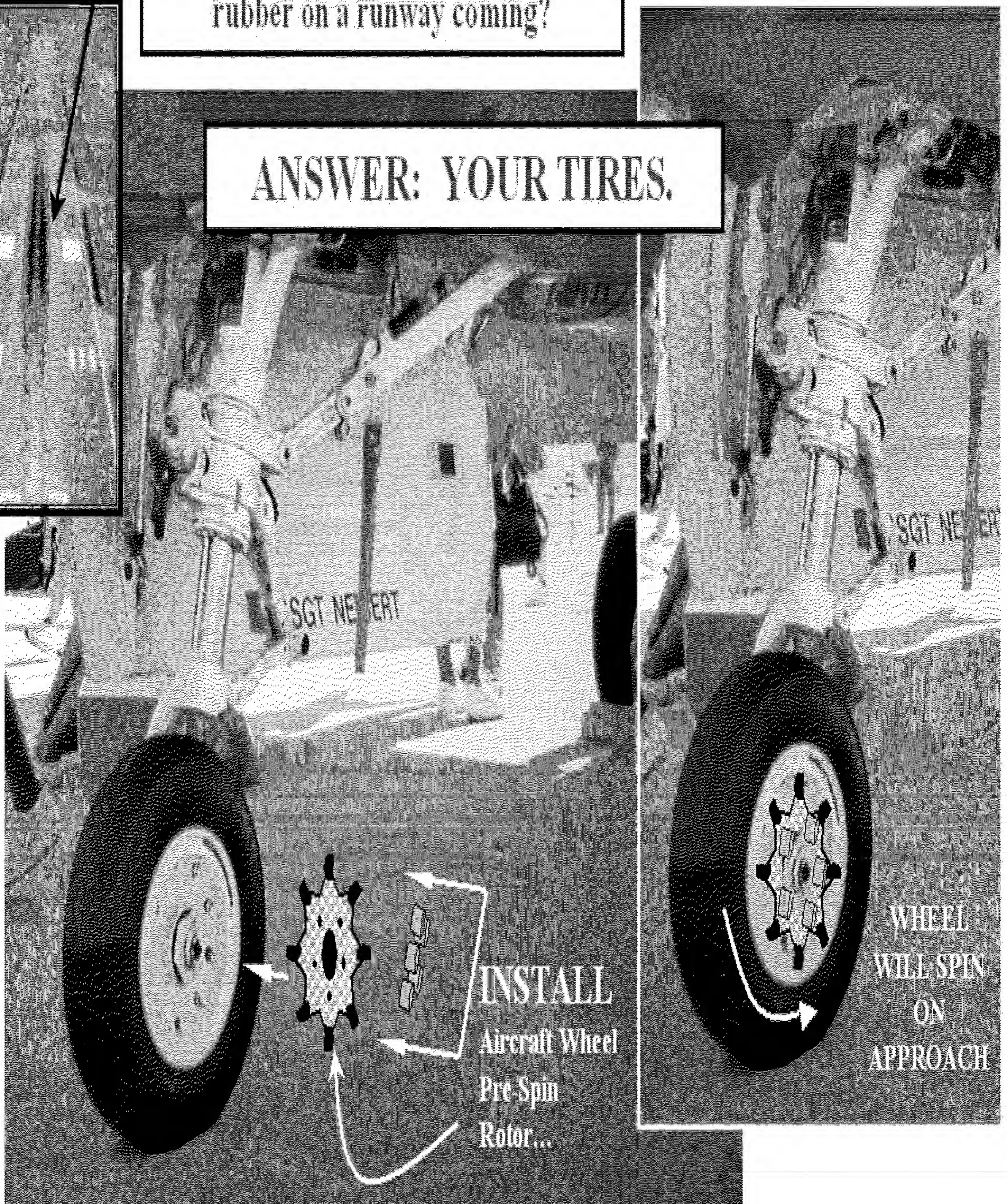PRE-SPIN CONTOUR
CUP

Typical
Aircraft
Landing Gear

FIGURE 3: EXAMPLE OF STATIC "CUP" METHOD FOR INCORPORATING THE AERODYNAMIC EFFECTS NEEDED FOR WHEEL SPIN-UP

FIGURE 4: DEPICTION OF THE PROBLEM AND THE WHEEL SPIN-UP ROTOR